

## ABSTRACT

Disclosed is a process for preparing hydrogenated conjugated diene block copolymers having the steps of (a) charging a solvent, a microstructure control agent, and an alkenyl aromatic hydrocarbon monomer into a first reactor forming an admixture of solvent, a microstructure control agent, and an alkenyl aromatic hydrocarbon monomer wherein the concentration of the microstructure control agent is from about 5 to about 10 weight percent; (b) titrating the admixture of solvent, microstructure control agent, and alkenyl aromatic monomer using an anionic polymerization initiator to form a living polymer; (c) allowing sufficient time for the living polymer to react with and incorporate the alkenyl aromatic monomer; (d) charging a conjugated diene monomer into the first reactor; (e) allowing sufficient time for the living polymer to react with and incorporate the conjugated diene monomer to form a living block copolymer; and (f) hydrogenating the living block copolymer to form a hydrogenated conjugated diene block copolymer. This single reactor process allows for the use of a microstructure control agent.